

```

FFF FFFF FFFF FFFF FFFF      111      111      XXX      XXX
FFF FFFF FFFF FFFF FFFF      111      111      XXX      XXX
FFF FFFF FFFF FFFF FFFF      111      111      XXX      XXX
FFF      111111      111111      XXX      XXX
FFF      111111      111111      XXX      XXX
FFF      111111      111111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFFFFFFF FFFF      111      111      XXX      XXX
FFFFFFFF FFFF      111      111      XXX      XXX
FFFFFFFF FFFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111      111      XXX      XXX
FFF      111111111      111111111      XXX      XXX
FFF      111111111      111111111      XXX      XXX
FFF      111111111      111111111      XXX      XXX

```

MM	MM	AAAAAA	TTTTTTTTTT	CCCCCCCC	HH	HH	NN	NN	AAAAAA	MM	MM	EEEEEEEEEE	
MM	MM	AAAAAA	TTTTTTTTTT	CCCCCCCC	HH	HH	NN	NN	AAAAAA	MM	MM	EEEEEEEEEE	
MMM	MMM	AA	TT	CC	HH	HH	NN	NN	AA	MMM	MMM	EE	
MMM	MMM	AA	TT	CC	HH	HH	NN	NN	AA	MMM	MMM	EE	
MM	MM	AA	TT	CC	HH	HH	NNNN	NN	AA	AA	MM	MM	EE
MM	MM	AA	TT	CC	HH	HH	NNNN	NN	AA	AA	MM	MM	EE
MM	MM	AA	TT	CC	HHHHHHHHHH	NN	NN	NN	AA	AA	MM	MM	EEEEEEEE
MM	MM	AA	TT	CC	HHHHHHHHHH	NN	NN	NN	AA	AA	MM	MM	EEEEEEEE
MM	MM	AAAAAAAAAA	TT	CC	HH	HH	NN	NNNN	AAAAAAAAAA	MM	MM	EE	
MM	MM	AAAAAAAAAA	TT	CC	HH	HH	NN	NNNN	AAAAAAAAAA	MM	MM	EE	
MM	MM	AA	TT	CC	HH	HH	NN	NN	AA	AA	MM	MM	EE
MM	MM	AA	TT	CC	HH	HH	NN	NN	AA	AA	MM	MM	EE
MM	MM	AA	TT	CC	HH	HH	NN	NN	AA	AA	MM	MM	EEEEEEEEEE
MM	MM	AA	TT	CCCCCCCC	HH	HH	NN	NN	AA	AA	MM	MM	EEEEEEEEEE
MM	MM	AA	TT	CCCCCCCC	HH	HH	NN	NN	AA	AA	MM	MM	EEEEEEEEEE

```

LL          IIIII
LL          IIIII
LL          III
LL          III
LL          III
LL          III
LL          III
LL          III
LL          III
LL          III
LL          III
LL          III
LL          III
LLLLLLLLLLL
LLLLLLLLLLL

            IIIII
            IIIII
              III
              III
              III
              III
              III
              III
              III
              III
              III
              III
              III
              III
            IIIII
            IIIII

SSSSSSSSS
SSSSSSSSS
    SS
    SS
    SS
    SS
      SSSSSS
      SSSSSS
                SS
                SS
                SS
                SS
        SSSSSSSS
        SSSSSSSS

```

(2) 53

FMGSMATCH\_NAME, general wild card matching



```
0000 1      .TITLE MATCHNAME      Match General Wild Card Specification
0000 2      .IDENT 'V04-000'
0000 3
0000 4
0000 5      *****
0000 6
0000 7      *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0000 18      *  THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
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0000 20      *  CORPORATION.
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0000 22      *  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0000 23      *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24
0000 25      *
0000 26      *****
0000 27
0000 28      **
0000 29
0000 30      FACILITY: Files-11 Structure Level 2
0000 31
0000 32      ABSTRACT:
0000 33
0000 34          This routine performs the general embedded wild card matching
0000 35          algorithm.
0000 36
0000 37      ENVIRONMENT:
0000 38
0000 39          VAX/VMS Operating System
0000 40
0000 41      --
0000 42
0000 43
0000 44      AUTHOR: Andrew C. Goldstein, CREATION DATE: 10-Aug-1979 11:36
0000 45
0000 46      MODIFIED BY:
0000 47
0000 48          V02-001 MLJ0031      Martin L. Jack, 4-Aug-1981 6:32
0000 49          Reorganize for simplicity and speed.
0000 50
0000 51      **
```

```
0000 53      .SBTTL  FMGSMATCH_NAME, general wild card matching
0000 54
0000 55      :++
0000 56      :
0000 57      : Functional Description:
0000 58      :   This routine performs the general embedded wild card matching
0000 59      :   algorithm.
0000 60
0000 61      : Calling Sequence:
0000 62      :   JSB
0000 63
0000 64      : Input Parameters:
0000 65      :   R2 = Length of candidate string.
0000 66      :   R3 = Address of candidate string.
0000 67      :   R4 = Length of pattern string.
0000 68      :   R5 = Address of pattern string.
0000 69
0000 70      : Implicit Inputs:
0000 71      :   none
0000 72
0000 73      : Output Parameters:
0000 74      :   none
0000 75
0000 76      : Implicit Outputs:
0000 77      :   none
0000 78
0000 79      : Routines Called:
0000 80      :   none
0000 81
0000 82      : Routine Value:
0000 83      :   True if the strings match.
0000 84
0000 85      : Signals:
0000 86      :   none
0000 87
0000 88      : Side Effects:
0000 89      :   R1-R5 destroyed.
0000 90
0000 91      :--
0000 92
00000000 93      .PSECT  $CODE$,NOWRT,EXE,WORD
0000 94
0000 95      FMGSMATCH_NAME::
03C0 8F  BB 0000 96      POSHR  #^M<R6,R7,R8,R9>      ; Save registers
      50  D4 0004 97      CLRL   R0              ; Assume failure
      56  D4 0006 98      CLRL   R6              ; Clear saved candidate count
      0008 99
0000 100     : Main scanning loop.
0000 101
      54  D7 0008 102 10$: DECL   R4              ; Pattern exhausted?
      24  19 000A 103      BLSS   30$            ; Branch if yes
      85  9A 000C 104      MOVZBL (R5)+,R1        ; Get next character in pattern
      51  91 000F 105      CMPB   R1,#^A'+      ; Pattern specifies wild string?
      2A  28 13 0012 106      BEQL   60$            ; Branch if yes
      52  D7 0014 107      DECL   R2              ; Candidate exhausted?
      1F  19 0016 108      BLSS   50$            ; Branch if yes
      83  51  91 0018 109      CMPB   R1,(R3)+      ; Compare pattern to candidate
```

```
25  EB 13 001B 110      BEQL 10$      : Branch if pattern equals candidate
    51 91 001D 111      CMPB R1,#^A'^' : Pattern specifies wild character?
    E6 13 0020 112      BEQL 10$      : Branch if yes
        0022 113      :
        0022 114      : We have detected a mismatch, or we are out of pattern while there is
        0022 115      : candidate left. Back up to the last '^', advance a candidate character,
        0022 116      : and try again.
        0022 117      :
    56 D7 0022 118 20$:  DECL R6      : Count a saved candidate character
    11 19 0024 119      BLSS 50$      : Branch if no saved candidate
    57 D6 0026 120      INCL R7      : Set to try next character
52  56 7D 0028 121      MOVQ R6,R2   : Restore descriptors to backup point
54  58 7D 002B 122      MOVQ R8,R4   :
    D8 11 002E 123      BRB 10$      : Continue testing
        0030 124      :
        0030 125      : Here when pattern is exhausted.
        0030 126      :
    52 D5 0030 127 30$:  TSTL R2      : Candidate exhausted?
    EE 12 0032 128      BNEQ 20$     : Branch if no
        0034 129      :
        0034 130      : Here to return.
        0034 131      :
50  01 D0 0034 132 40$:  MOVL #1,R0   : Set success return
03C0 8F BA 0037 133 50$:  POPR #^M<R6,R7,R8,R9> : Restore registers
        003B 134      RSB          : Return
        003C 135      :
        003C 136      : We have detected a '^' in the pattern. Save the pointers for backtracking.
        003C 137      :
    54 D5 003C 138 60$:  TSTL R4      : Pattern null after '^'?
    F4 13 003E 139      BEQL 40$     : Branch if yes
56  52 7D 0040 140      MOVQ R2,R6   : Save descriptors of both strings
58  54 7D 0043 141      MOVQ R4,R8   :
    C0 11 0046 142      BRB 10$      : Continue testing
        0048 143      :
        0048 144      .END
```



MATCHNAME  
Symbol table

J 11  
Match General Wild Card Specification

15-SEP-1984 23:44:15 VAX/VMS Macro V04-00  
5-SEP-1984 01:14:02 [F11X.SRC]MATCHNAME.MAR;1

Page 4  
(2)

ACL\_TYPE = 00000007  
AGB\_TYPE = 00000005  
BITMAP\_TYPE = 00000001  
CACHE\_TYPE = 00000006  
CHIP\_TYPE = 00000008  
DATA\_TYPE = 00000004  
DIRECTORY\_TYPE = 00000002  
FCB\_TYPE = 00000000  
FMG\$MATCH\_NAME = 00000000 RG 01  
HEADER\_TYPE = 00000000  
INDEX\_TYPE = 00000003  
MVL\_TYPE = 00000004  
QUOTA\_TYPE = 00000005  
RVT\_TYPE = 00000003  
VCB\_TYPE = 00000002  
WCB\_TYPE = 00000001

+-----+  
! Psect synopsis !  
+-----+

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 ( 0.)	00 ( 0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$CODE\$	00000048 ( 72.)	01 ( 1.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC WORD

+-----+  
! Performance indicators !  
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.08	00:00:00.33
Command processing	127	00:00:00.69	00:00:02.53
Pass 1	85	00:00:00.67	00:00:02.66
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	42	00:00:00.44	00:00:01.15
Symbol table output	2	00:00:00.02	00:00:00.02
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	290	00:00:01.93	00:00:06.72

The working set limit was 750 pages.  
2825 bytes (6 pages) of virtual memory were used to buffer the intermediate code.  
There were 10 pages of symbol table space allocated to hold 16 non-local and 6 local symbols.  
245 source lines were read in Pass 1, producing 11 object records in Pass 2.  
2 pages of virtual memory were used to define 2 macros.

-----  
! Macro library statistics !  
-----

Macro library name	Macros defined
-----	-----
\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0
TOTALS (all libraries)	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:MATCHNAME/OBJ=OBJ\$:MATCHNAME MSRC\$:FCPPRE/UPDATE=(ENH\$:FCPPRE)+MSRC\$:MATCHNAME/UPDATE=(ENH\$:MATCHNAME)+EXECML\$/LIB



0171 AH-BT13A-SE  
VAX/VMS V4.0

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